

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560121

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-80-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560121  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FSR-12-2-LD4-1STD-50-UNV-80-88-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

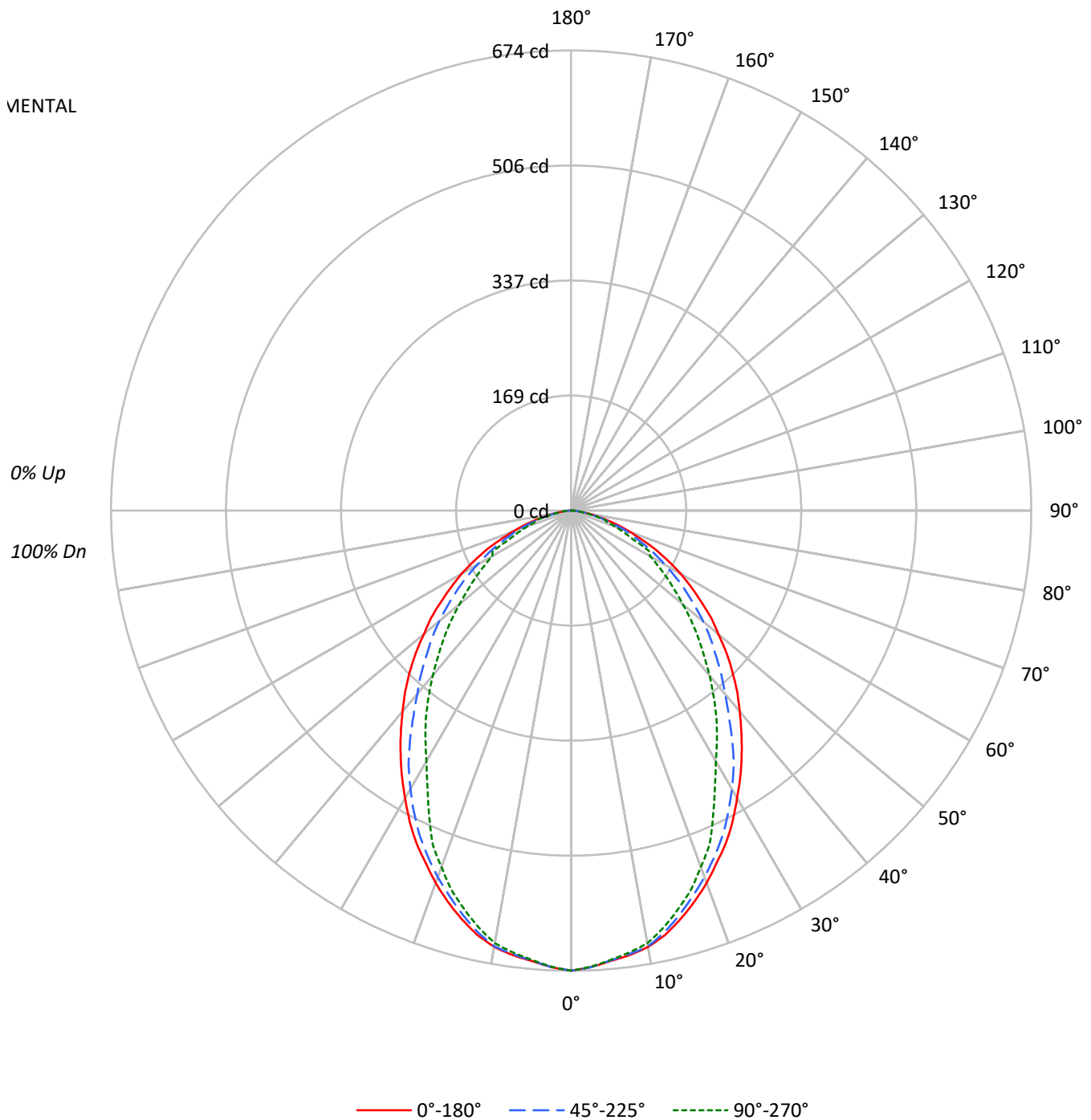
Lumens per Lamp: N/A  
Luminaire Lumens: 1323.0 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3627	3627	3627
5°	3578	3574	3569
10°	3547	3542	3517
15°	3451	3416	3369
20°	3324	3271	3182
25°	3188	3118	2924
30°	3022	2925	2634
35°	2861	2703	2436
40°	2699	2463	2217
45°	2544	2277	2004
50°	2355	2113	1788
55°	2179	1915	1601
60°	1996	1710	1434
65°	1756	1498	1270
70°	1446	1312	1079
75°	1150	1004	1052
80°	772	725	676
85°	482	574	673

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2544 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.7	4.7
10°-20°	172.2	13.0
20°-30°	238.3	18.0
30°-40°	254.1	19.2
40°-50°	231.9	17.5
50°-60°	181.6	13.7
60°-70°	118.4	8.9
70°-80°	52.5	4.0
80°-90°	11.3	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	473.2	35.8
0°-40°	727.4	55.0
0°-60°	1140.9	86.2
0°-90°	1323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	662	662	662	661	661	63
15°	619	619	613	607	605	174
25°	537	534	525	506	492	246
35°	436	432	411	380	371	272
45°	334	327	299	274	263	257
55°	232	225	204	180	171	208
65°	138	130	118	120	100	136
75°	55	51	48	46	51	59
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	673.9	673.9	673.9	673.9	673.9
2.5°	669.2	669.2	669.2	668.5	668.5
5°	662.2	661.5	661.5	660.7	660.7
7.5°	656.8	656.0	655.2	654.4	652.9
10°	649.0	649.0	648.2	644.3	643.5
12.5°	636.5	635.7	632.6	627.2	625.6
15°	619.4	619.4	613.1	606.9	604.6
17.5°	600.7	599.9	592.1	585.9	582.8
20°	580.4	578.9	571.1	560.9	555.5
22.5°	557.8	557.8	548.5	535.2	529.8
25°	536.8	533.7	525.1	506.4	492.4
27.5°	512.6	508.0	498.6	472.1	455.8
30°	486.2	483.8	470.6	436.3	423.8
32.5°	461.2	457.3	443.3	407.5	397.3
35°	435.5	432.4	411.4	380.2	370.8
37.5°	409.8	405.9	379.4	354.5	342.8
40°	384.1	379.4	350.6	328.0	315.5
42.5°	359.9	353.7	325.7	301.5	287.5
45°	334.2	327.2	299.2	274.2	263.3
47.5°	308.5	302.3	276.6	250.9	238.4
50°	281.3	275.8	252.4	226.7	213.5
52.5°	258.7	250.1	227.5	201.8	190.9
55°	232.2	225.2	204.1	180.0	170.6
57.5°	208.0	201.0	181.5	158.9	151.1
60°	185.4	175.3	158.9	139.5	133.2
62.5°	160.5	152.7	138.7	122.3	130.1
65°	137.9	130.1	117.6	120.0	99.7
67.5°	113.0	109.1	98.2	87.3	84.1
70°	91.9	87.3	83.4	71.7	68.6
72.5°	73.2	68.6	63.1	56.9	54.5
75°	55.3	51.4	48.3	46.0	50.6
77.5°	38.2	36.6	34.3	31.9	31.2
80°	24.9	24.2	23.4	22.6	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.3	10.1	10.9
87.5°	4.7	4.7	5.5	6.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)